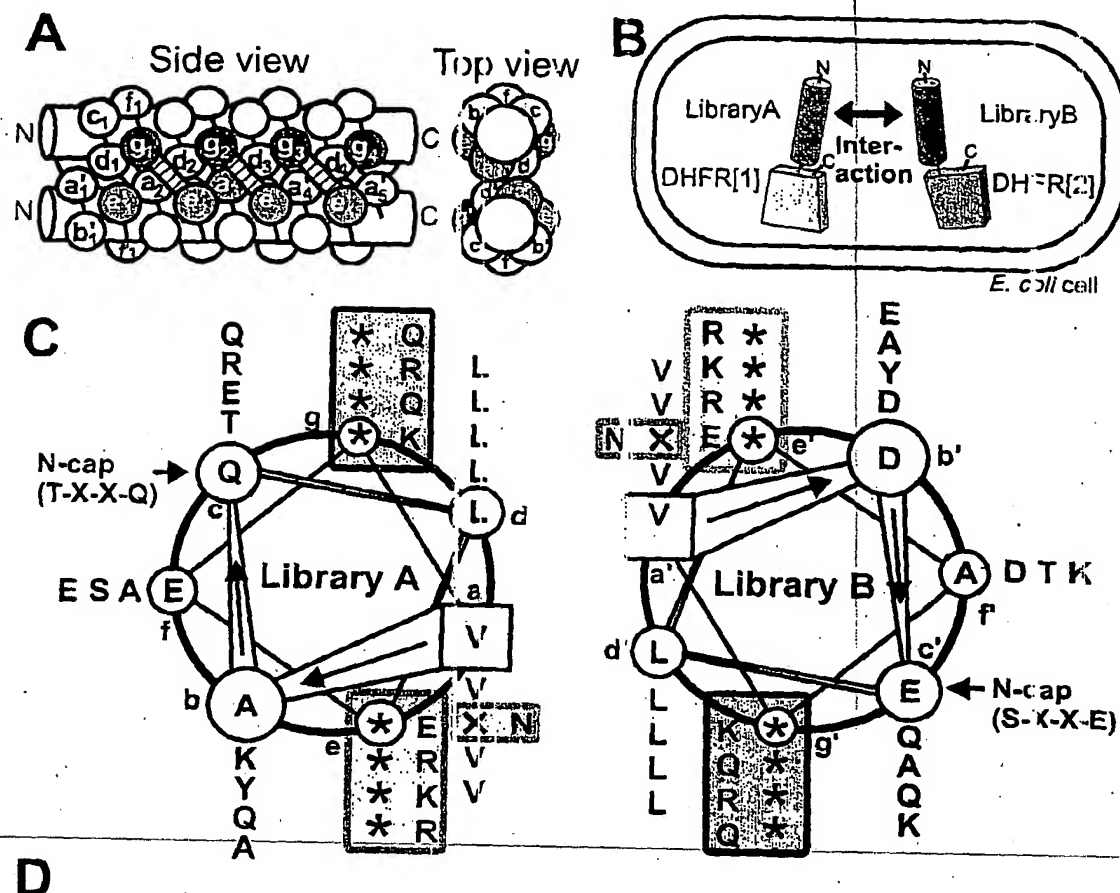


Figure 1:



D

clone		Library A										Library B									
(occurrence)		e1	g1	e2	g2	a3	e3	g3	e4	g4	e1	g1	e2	g2	a3	e3	g3	e4	g4		
#1	(22x)	E	K	R	Q	N	K	R	R	C	Q	E	Q	E	N	K	K	R	K		
#2	(3x)	Q	K	R	R	N	K	E	E	K	E	E	K	Q	N	K	K	Q	Q		
#3	(2x)	E	Q	Q	R	N	K	K	K	K	R	K	Q	E	N	E	E	Q	R		
#4	(1x)	E	R	R	Q	N	K	K	E	C	E	E	E	Q	N	Q	R	E	R		
#5	(1x)	E	Q	E	E	N	K	K	R	R	K	K	K	K	N	R	K	R	K		
#6	(3x)	Q	Q	E	Q	N	E	E	K	Q	R	Q	Q	K	N	R	R	K	R		
#7	(2x)	E	R	K	E	N	E	E	K	R	Q	E	Q	Q	N	R	Q	K	K		
#8	(1x)	E	K	K	K	N	K	K	K	K	R	Q	E	Q	N	E	Q	E	E		
#9	(1x)	Q	E	Q	E	N	R	E	E	E	Q	K	K	E	N	Q	K	Q	R		
#10	(1x)	R	R	R	R	N	Q	K	K	R	R	E	E	E	N	R	R	R	Q		

Figure 2:

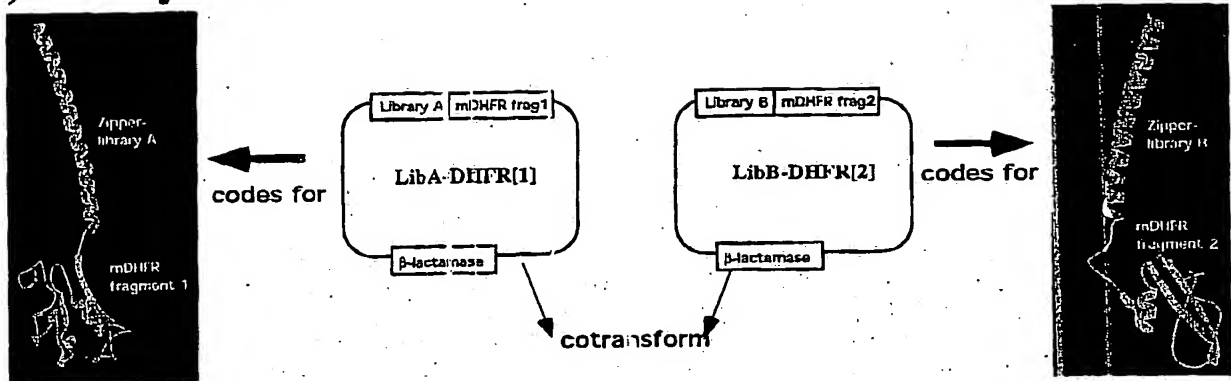
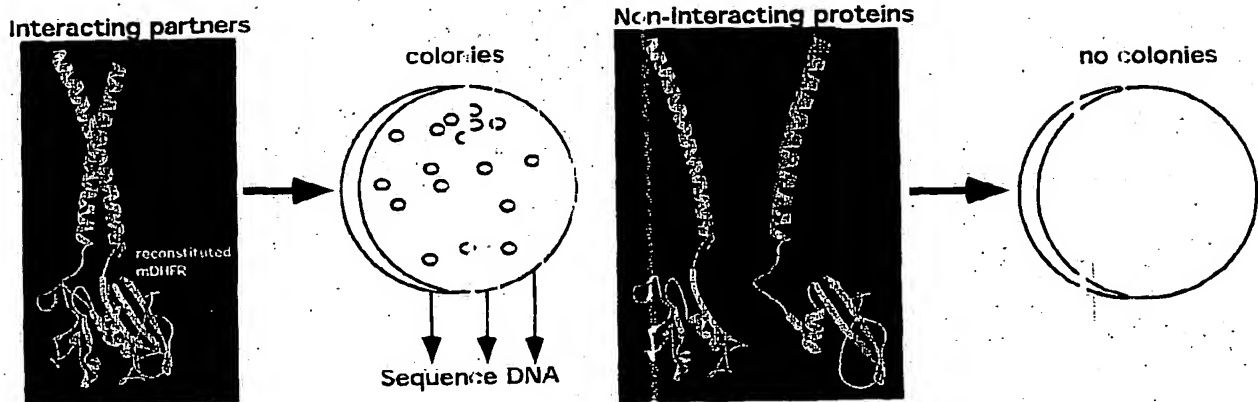
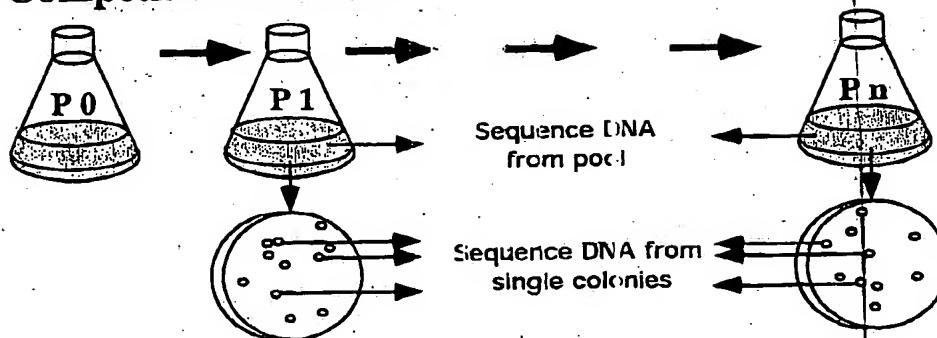
(A) Library constructs**(B) Single-step selection****(C) Competition selection**

Figure 3:

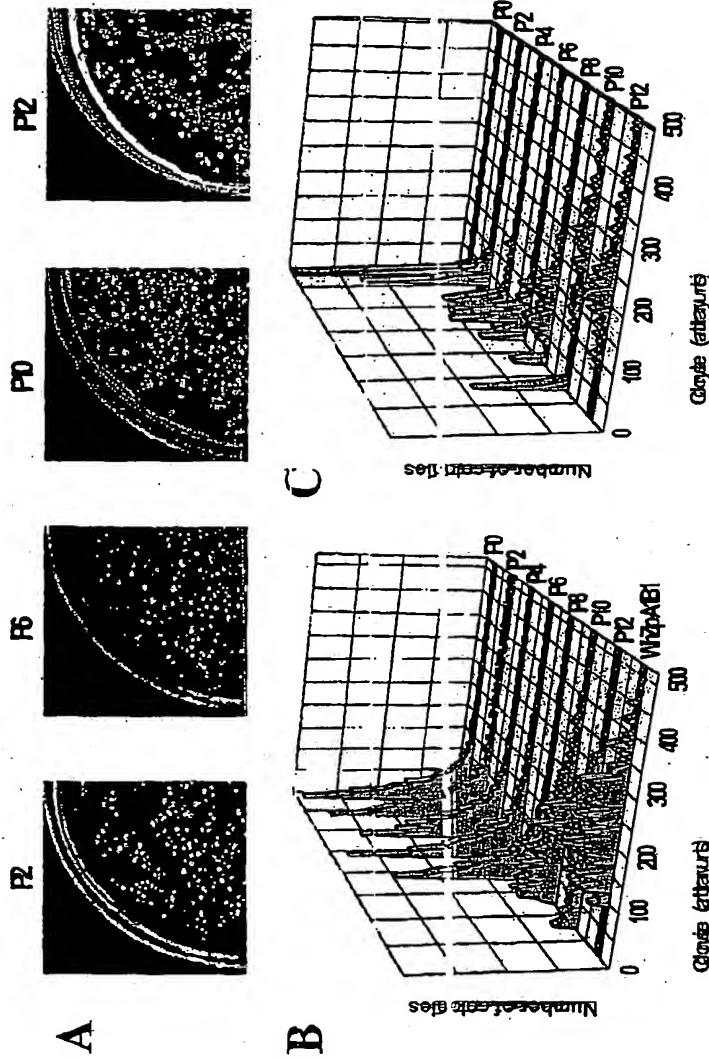


Figure 4:

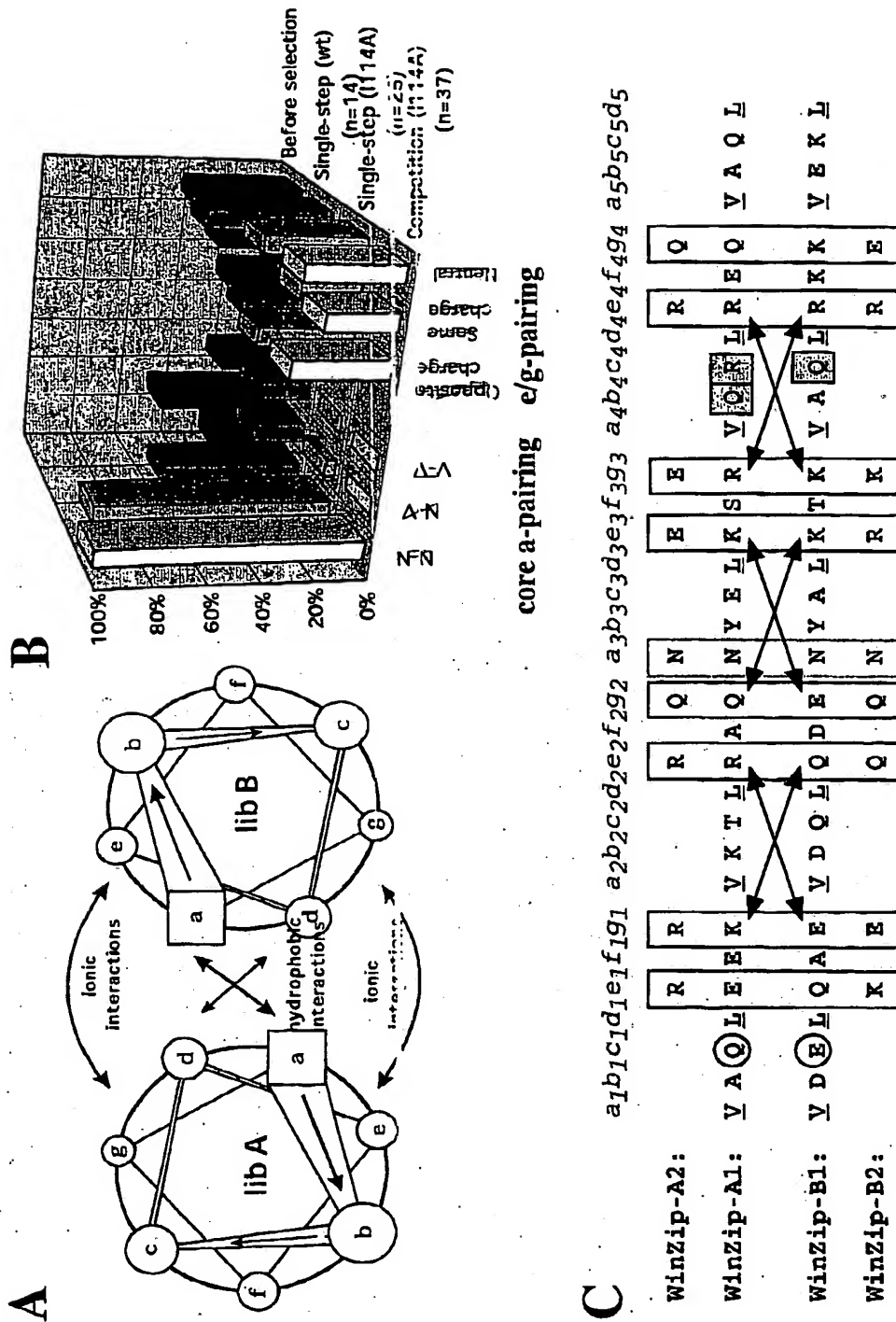


Figure 5:

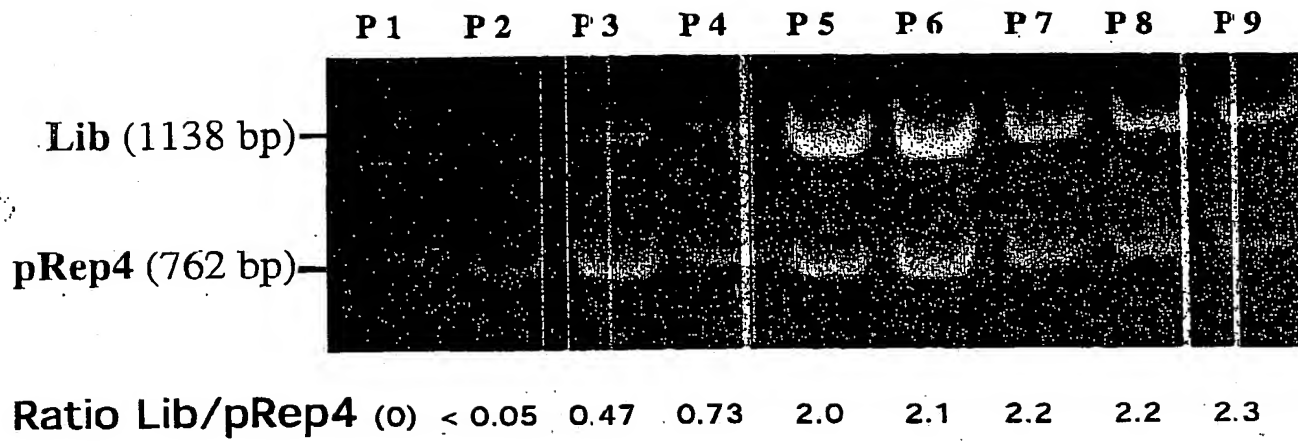


Figure 6:

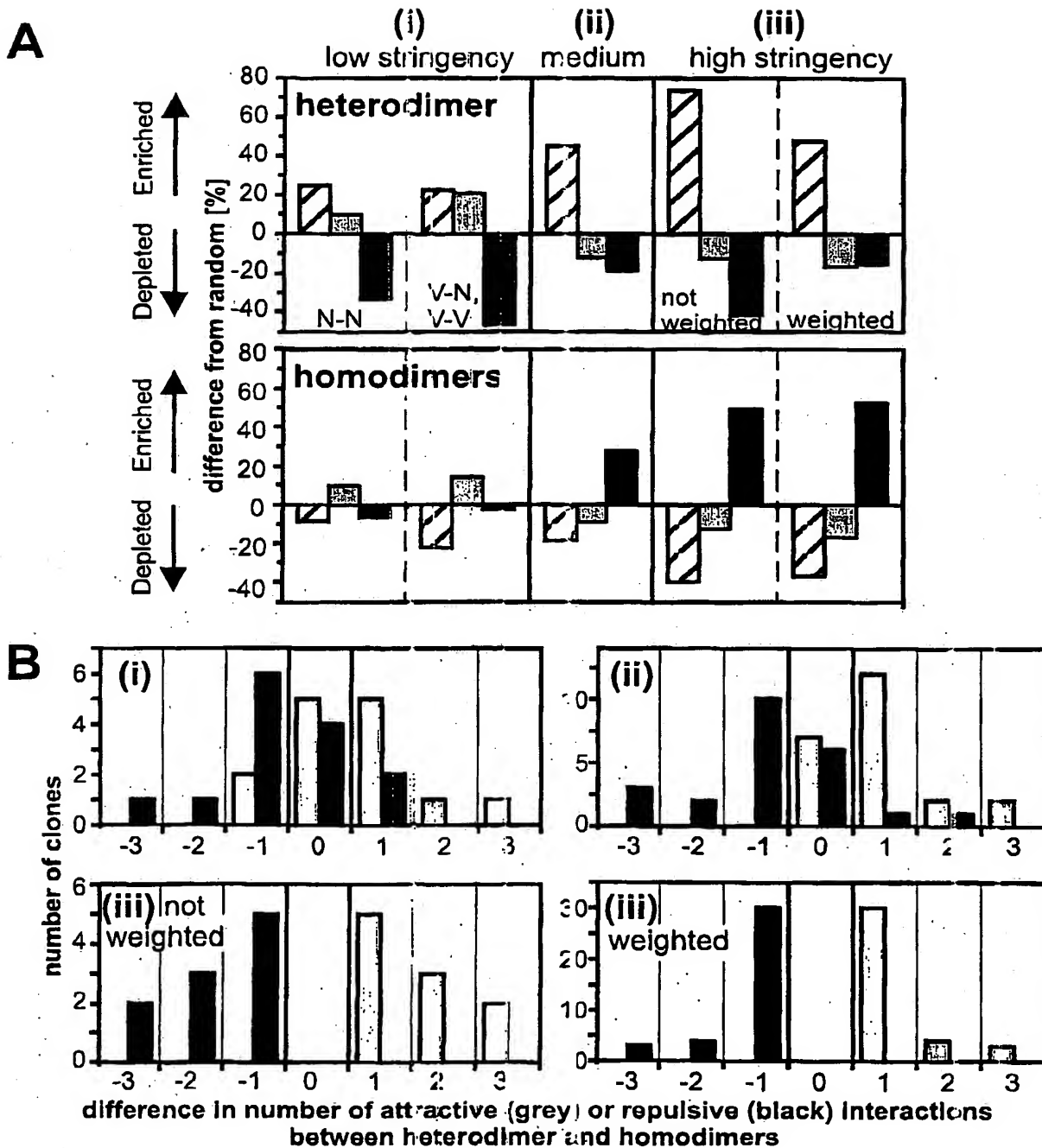


Figure 7:

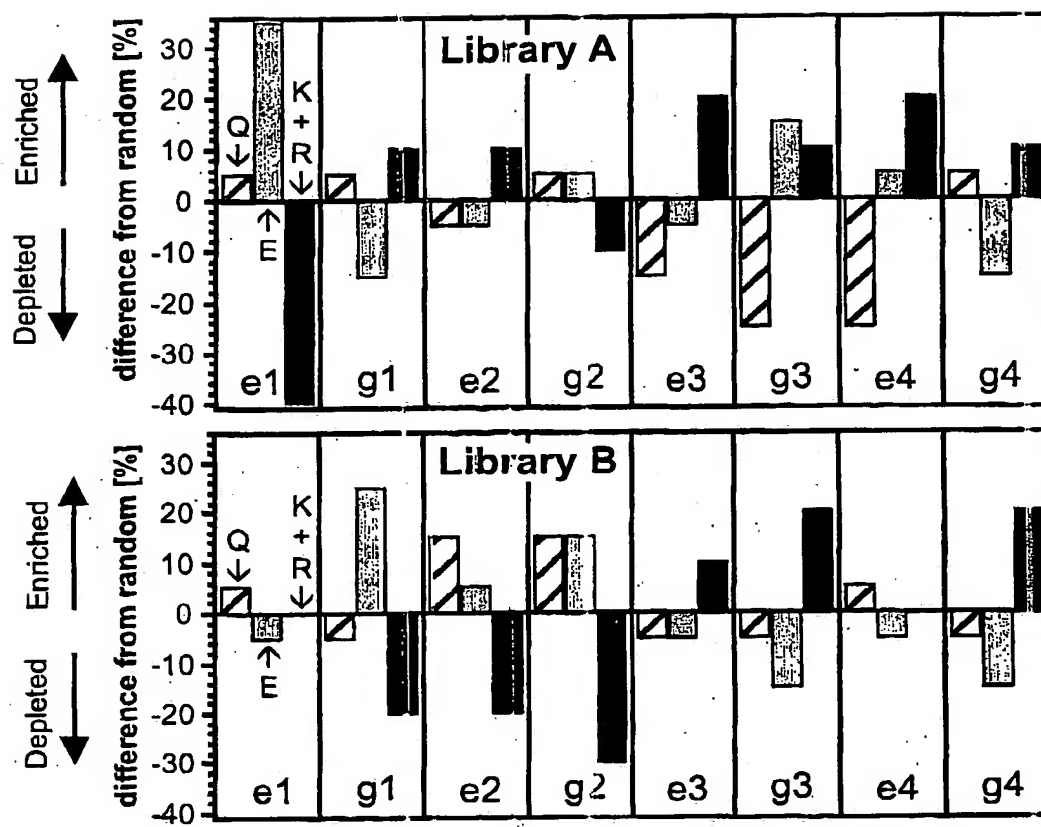


Figure 8:

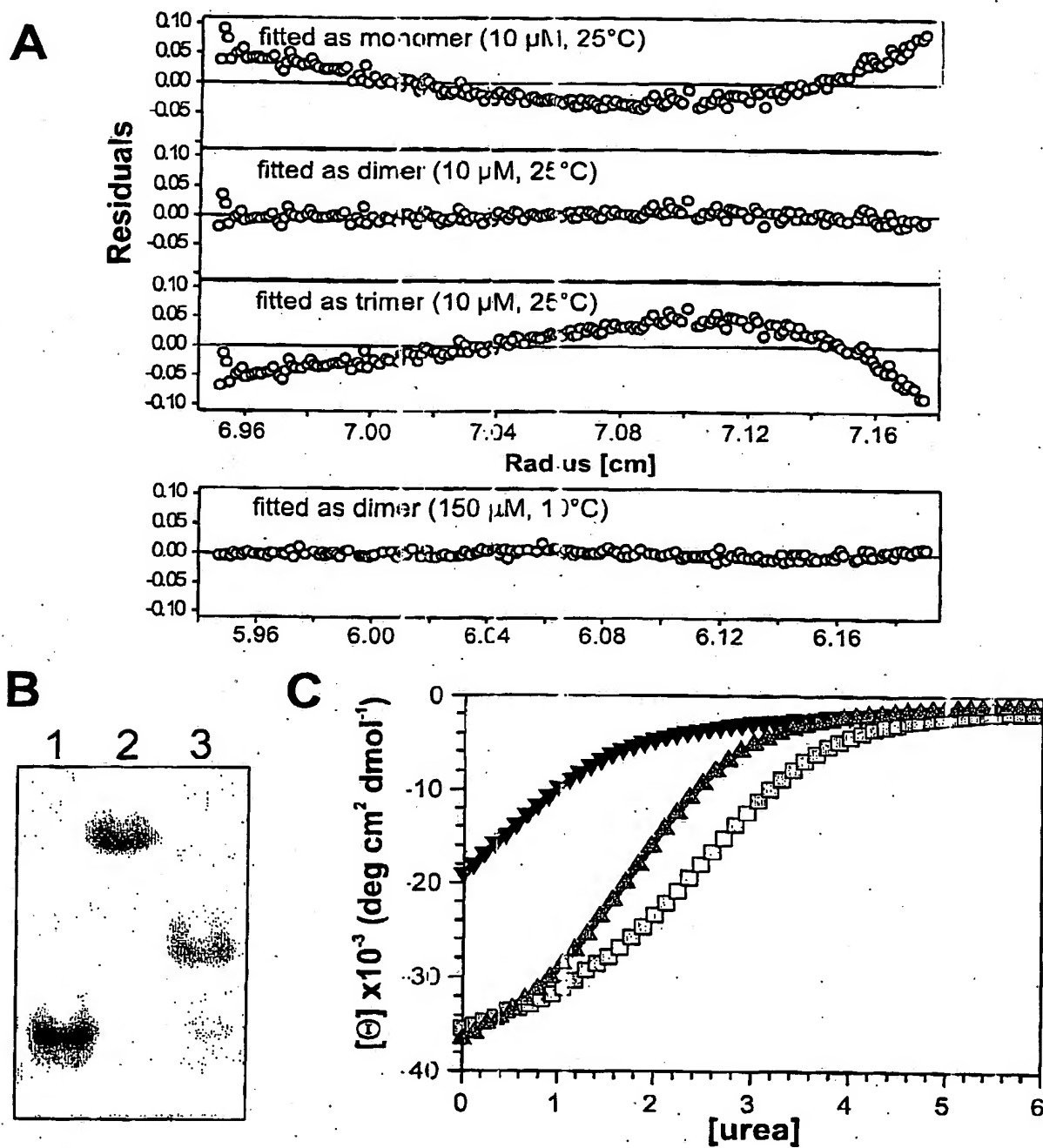


Figure 9:

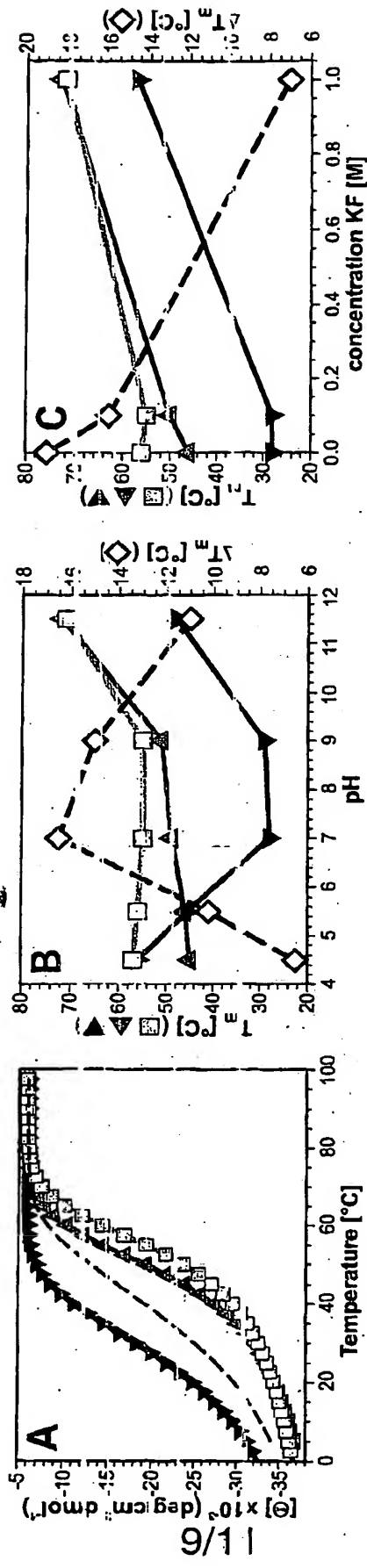


Figure 10:

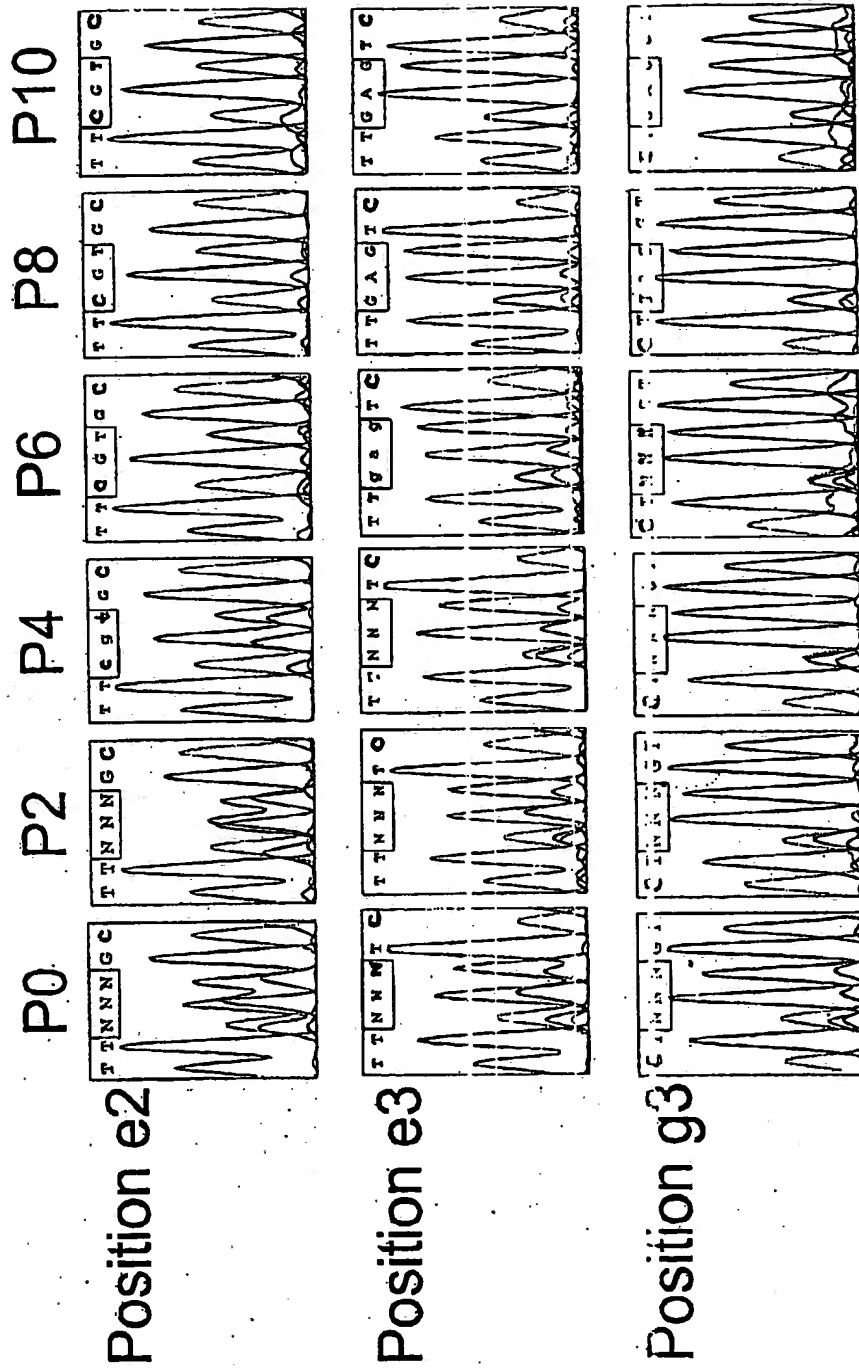


Figure 11:

(A)

WinZipA1: VAQLEEKVKTLRAQNYELKSRVQRLREQVAQL
 WinZipA2: VAQLRERVKTLRAQNYELESEVQRLREQVAQL
 WinZipA3: VAQLQEKVKTLRARNYELKSEVQRLKEKVAQL
 WinZipA4: VAQLEEQVKTLQAARNYELKSKVQRLKEKVAQL
 WinZipA5: VAQLEERVKTLRAQNYELKSKVQRLREQVAQL
 WinZipA6: VAQLEEQVKTLKAENYELKSKVQRLRERVAQL
 WinZipA7: VAQLQEQVKTLQAQNYELESEVQRLKEQVAQL
 WinZipA8: VAQLEERVKTLKAENYELESEVQRLKERVAQL
 WinZipA9: VAQLEEKVKTLKAKNYELKSKVQRLKEKVAQL
 WinZipA10: VAQLQEEVKTLQAENYELRSEVQRLKEEVAQL
 WinZipA11: VAQLRERVKTLRARNYELQSKVQRLKERVAQL

(B)

WinZipB1: VDELQAEVDQLQDENYALKTKVAQLRKKVEKL
 WinZipB2: VDELKAEVDQLQDQNYALRTKVAQLRKEVEKL
 WinZipB3: VDELEAEVDQLKDQNYALKTKVAQLQKQVEKL
 WinZipB4: VDELRAKVDQLQDENYALETEVAQLQKRVEKL
 WinZipB5: VDELEAEVDQLEDDQNYALQTRVAQLEKRVEKL
 WinZipB6: VDELKAKVDQLKDQNYALRTKVAQLRKKVEKL
 WinZipB7: VDELRAQVDQLQDKNYALRTRVAQLKKRVEKL
 WinZipB8: VDELQAEVDQLQIDQNYALRTQVAQLKKKVEKL
 WinZipB9: VDELRAQVDQLEDDQNYALETQVAQLEKEVEKL
 WinZipB10: VDELQAKVDQLKIDENYALQTKVAQLQKRVEKL
 WinZipB11: VDELRAEVDQLEIDENYALRTRVAQLRKQVEKL